

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for managing multiple memory devices, that replace a single designed memory device, over a contiguous range of logical memory addresses, each memory device being assigned to having a different, non-contiguous physical address range, the method comprising:
 - receiving a command comprising a first logical memory address from the range of logical memory addresses;
 - accessing a look-up table having logical memory addresses with their corresponding physical memory addresses from one of the plurality of ranges of physical memory addresses to find a first physical memory address, from a range of physical memory addresses, that corresponds to the first logical memory address; and
 - generating a chip select signal to one of the multiple memory devices in response to the first physical memory address;
 - wherein the plurality of ranges of physical memory addresses include non-contiguous physical memory address space such that each non-contiguous physical memory address space corresponds to a different memory device of the multiple memory devices.
2. (Previously presented) The method of claim 1 wherein the range of physical memory addresses is contiguous.
3. (Previously presented) The method of claim 1 wherein the range of physical memory addresses is substantially equivalent to the range of logical memory addresses.
4. (Original) The method of claim 1 wherein the multiple memory devices are flash RAM devices.

5. (Previously presented) The method of claim 1 wherein the range of logical memory addresses are contiguous and the corresponding range of physical memory addresses is non-contiguous and comprised of a plurality of physical memory address sub-ranges.
6. (Previously presented) The method of claim 5 wherein a chip select signal is generated for each physical memory address sub-range.
7. (Currently amended) A method for managing multiple flash memory devices, that replace a single designed flash memory device, over a range of logical memory addresses, the method comprising:
 - receiving a command comprising a first logical memory address from the range of logical memory addresses;
 - accessing a look-up table having logical memory addresses with their corresponding physical memory addresses from one of the plurality of ranges of physical memory addresses to find a first physical memory address, from a plurality of non-contiguous physical memory address addresses ranges, that corresponds to the first logical memory address wherein each non-contiguous physical memory address range corresponds to a different one of the multiple flash memory devices; and
 - generating a chip select signal to one of the multiple flash memory devices in response to the first physical memory address.
8. (Previously presented) The method of claim 7 wherein receiving the command comprises a controller circuit executing an application in which the first logical memory address is read from memory along with the command.
9. (Previously presented) The method of claim 7 wherein receiving the command comprises a device manager receiving the first logical memory address from a controller circuit.
10. (Previously presented) The method of claim 9 wherein the device manager generates the chip select signal in response to the first physical memory address.

-
11. (Previously presented) A method for managing multiple flash memory devices, that replace a single memory device, over a range of logical memory addresses, the method comprising:
- a controller circuit executing an application;
 - the controller circuit receiving a first logical memory address from the range of logical memory addresses in response to the execution of the application;
 - accessing a look-up table having logical memory addresses with their corresponding physical memory addresses from one of the plurality of ranges of physical memory addresses to find a first physical memory address, from a range of physical memory addresses comprising a plurality of non-contiguous sub-ranges, that corresponds to the first logical memory address each non-contiguous sub-range corresponding to a different one of the multiple flash memory devices;
 - outputting the first physical memory address to chip select generation circuitry;
 - and
 - the chip select generation circuitry generating a chip select signal to one of the multiple flash memory devices in response to the first physical memory address.
12. (Previously presented) The method of claim 11 wherein each of the plurality of non-contiguous sub-ranges is substantially equal to a logical memory address range of a flash memory device of the multiple flash memory devices.
13. (Previously presented) An electronic system having a logical memory address map comprising a flash memory logical memory address range for a designed memory device, the system comprising:
- a plurality of flash memory devices, that replace the designed flash memory device, having a combined physical memory address range substantially equivalent to the flash memory logical memory address range, wherein the combined physical memory address range comprises a plurality of

non-contiguous physical memory address ranges such that each flash memory device has a different physical non-contiguous memory address range;

a controller circuit coupled to the plurality of memory devices, the controller circuit adapted to access a look-up table stored in memory and comprising a plurality of logical memory addresses with their corresponding physical memory addresses to find a first physical memory address from the combined physical memory address range, comprising a non-contiguous physical memory address space, in response to a first logical memory address received from an executing software application; and

a chip select generation circuit coupled to the controller circuit and the plurality of memory devices, the chip select generation circuit transmitting a chip select signal to one of the plurality of memory devices in response to the first physical memory address.

14. (Original) The system of claim 13 wherein the controller circuit is coupled to the plurality of flash memory devices through a plurality of address lines.
15. (Canceled)
16. (Previously presented) The system of claim 13 wherein the controller circuit generates the first physical memory address in response to adding an address offset to the first logical memory address.
17. (Previously presented) An electronic system having a logical memory address map stored in memory comprising a flash memory logical memory address range for a designed memory device with corresponding physical memory addresses, the system comprising:
 - a processor that executes a software application, thereby generating a first logical memory address;
 - a plurality of flash memory devices, that replace the designed flash memory device, having a combined physical memory address range, comprising a

plurality of non-contiguous physical memory address ranges, wherein each flash memory device has a different one of the non-contiguous physical memory address ranges, substantially equivalent to the flash memory logical memory address range, the plurality of flash memory devices coupled to the processor over address lines; and
a device manager coupled to the plurality of flash memory devices and the processor, the device manager comprising:

- a controller function adapted to access the logical memory address map and find a first physical memory address from the combined physical memory address range that corresponds to the first logical memory address; and
- a chip select generation function capable of transmitting a chip select signal to one of the plurality of memory devices in response to the first physical memory address.

18. (Canceled)
19. (Previously presented) The electronic system of claim 17 wherein the controller function adds an address offset to the logical memory address to generate the physical memory address.
20. (Previously presented) In an electronic system that is controlled by a processor, a method for managing multiple flash memory devices, that replace a single flash memory device, over a range of logical memory addresses, the method comprising:
 - the processor executing a software application;
 - the processor receiving a first logical memory address from the range of logical memory addresses in response to the execution of the application;
 - the processor accessing a stored look-up table comprising the range of logical memory addresses with corresponding physical memory addresses to find a first physical memory address, from a range of physical memory addresses comprising a plurality of non-contiguous address sub-ranges,

that corresponds to the first logical memory address wherein each non-contiguous address sub-range corresponds to a different one of the multiple flash memory devices;

the processor outputting the first physical memory address to chip select generation circuitry; and

the chip select generation circuitry transmitting a chip select signal, generated in response to the first physical memory address, to a first flash memory device of the multiple flash memory devices.